

# MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS) July 2004

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
16	1353	A: SOD NAG SPT GUI	12	0616-0628	NGK+
		B: NUR DOU CLF HRB	13	0844-0900	BDV+
		C: NGK* GCK	13	0927-0933	NGK+
		-: COI	14	0516-0540	MMB+ KAK+ KNY+ HYB
		(SI: VAL)	15	0132-0206	GNA+ CNB+
16	2155	C: BDV* MMB* KAK KNY	15	0137-0200	MMB+ KAK+ KNY+
			15	2236-2255	MMB+ KAK+ KNY+
			16	0159-0255	MMB+ KAK+ KNY+
22	1036	A: LER* ESK* VAL* HAD* GUI GNA CNB			CNB+
		B: SOD* NUR* HRB NAG* MMB* EBR KAK* KNY*	16	0204-0212	GNA+
		C: NGK* DOU BDV* CLF* GCK SPT HYB	16	1038-1055	BDV+
			16	1353-1521	LER ESK HAD BDV+
24	0614	A: SOD* LER* ESK* VAL* HAD* MMB* EBR*	17	0755-0805	EBR+ (See SSC list)
		SPT* KAK* KNY* GUI	17	2128-2150	MMB+ KAK+ KNY+
		B: NUR* CLF* HRB NAG*	18	0254-0310	MMB+ KAK+ KNY+
		C: NGK* DOU BDV*	20	1225-1252	NGK+ HAD BDV+ EBR
		-: COI			GUI
			21	0032-0045	MMB+ KAK+ KNY+
26	2249	A: SOD* NUR LER* ESK* NGK* VAL HAD*	21	0513-0520	MMB+ KAK+ KNY+
		DOU* CLF HRB* NAG* MMB* EBR*	22	0023-0050	MMB+ KAK+ KNY+
		SPT* KAK KNY* HYB GNA* CNB*			CNB+
		B: BDV* GCK*			
30	2114	-: COI*			
		A: NAG*			
		B: SPT GUI*			
		C: NGK* BDV* CLF HRB			
		(SI: LER* ESK* HAD* EBR)			

## REPORTING OBSERVATORIES (up to the 2nd of September 2004):

SOD NUR LER ESK NGK VAL HAD DOU BDV CLF HRB NAG GCK MMB EBR COI SPT KAK HTY KNY GUI  
HYB GNA CNB

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The \* means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).

Note that we have included data of the Antarctic Station LIVINGSTONE (62° 39' 44" S, 60°23' 41" W) -- Luis F.

## Criterion on Provisional SSC data

From December 2002, we are giving as provisional SSC only the SSC reported by more than 4 observatories. This is a change with respect to the previous criterion according to which we used to give the SSC reported by more than 5 observatories. The change, pending IAGA confirmation, has been provisionally taken because of the decreasing number of reporting observatories in order to keep the homogeneity of the data. The idea is to keep the same minimum percentage of the observatories reporting an SSC, relative to the total number of reporting observatories, to be considered as a probable SSC.